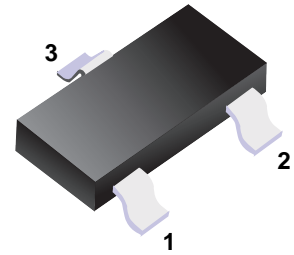


# BAT54/A/C/S

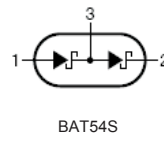
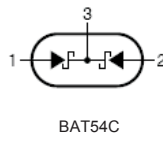
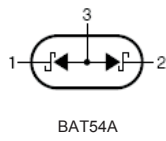
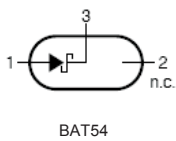
## Schottky Diodes



■ Simplified outline(SOT-23)

### ■ Features

- Low forward voltage
- Guard ring protected
- Small plastic SMD package.



### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Maximum Repetitive Reverse Voltage	$V_{RRM}$	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current Pulse width = 1.0 second	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	430	$^\circ\text{C}/\text{W}$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	150	$^\circ\text{C}$

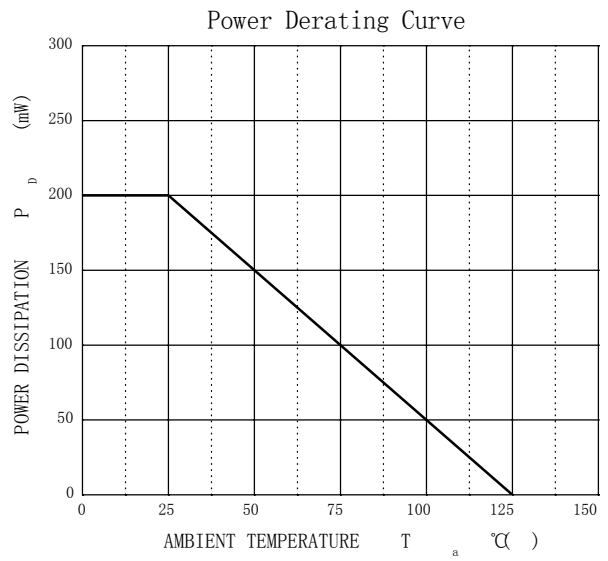
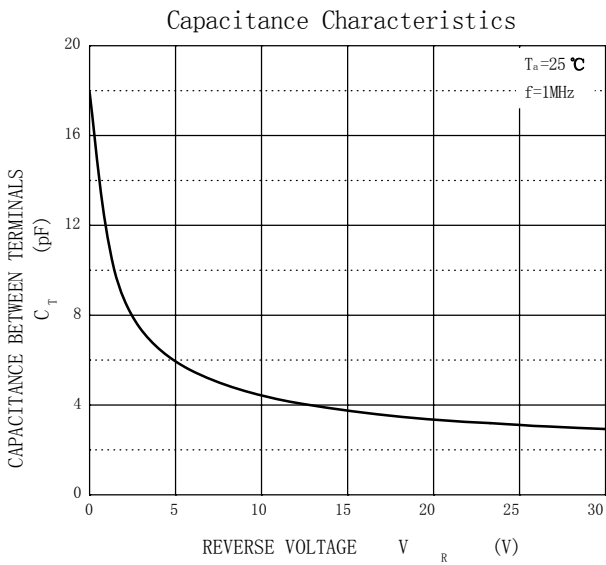
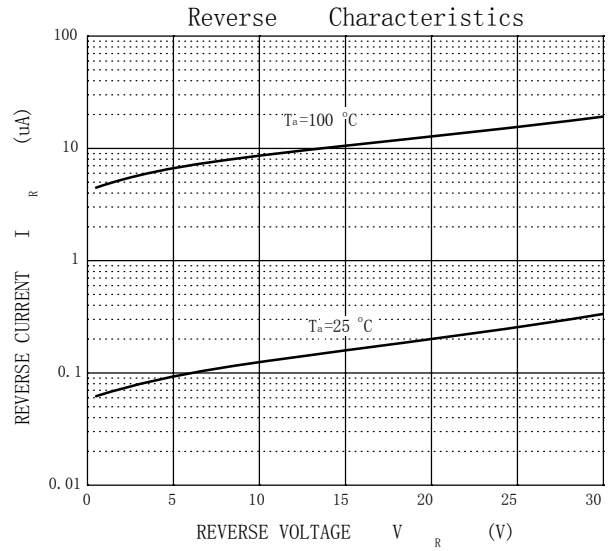
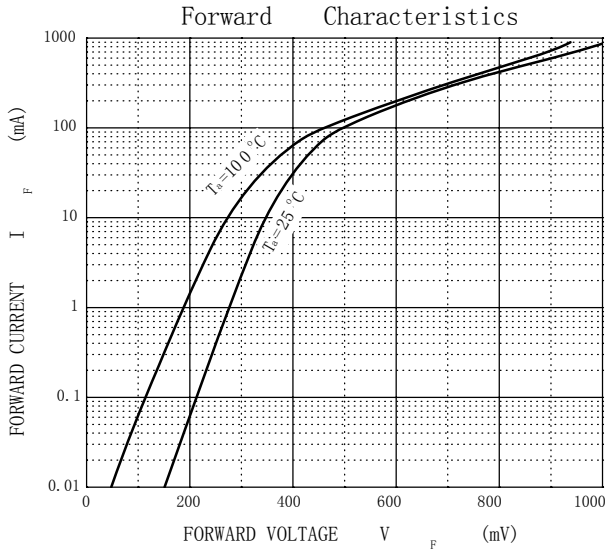
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Breakdown Voltage	$V_R$	$I_R = 100 \mu\text{A}$	30			V
Forward Voltage	$V_F$	$I_F = 0.1 \text{ mA}$			240	mV
		$I_F = 1 \text{ mA}$			320	mV
		$I_F = 10 \text{ mA}$			400	mV
		$I_F = 30 \text{ mA}$			500	mV
		$I_F = 100 \text{ mA}$			0.8	V
Reverse Current	$I_R$	$V_R = 25 \text{ V}$			2	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 1\text{V}, f = 1.0 \text{ MHz}$			10	pF
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA}, R_L = 100\Omega$			5	ns

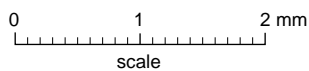
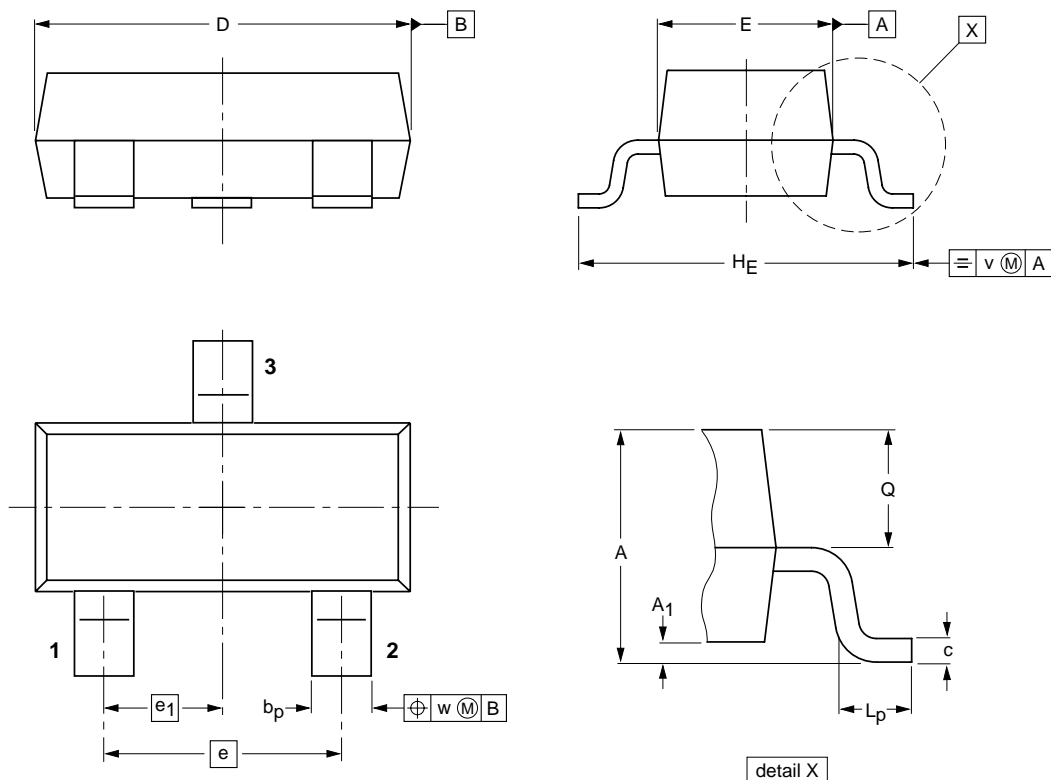
### ■ Marking

TYPE	BAT54	BAT54A	BAT54C	BAT54S
Marking	KL1	L42 or KL2	L43 or KL3	L44 or KL4

■ Typical Characteristics



■ SOT-23



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1